

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: jschwart@ix.netcom.com (John Schwartzberg)
Subject: Re: 1 tube transmitters
Message-ID: <199509231631.JAA10719@ix.ix.netcom.com>

At 03:39 PM 9/20/95 -0500, Stan Skelton wrote:
..If you could share some
>of the designs you still have that would be great....
>

Stan-

I'd be happy to send some stuff along to you. Please pass along your mailing address, and I'll make a copy of the project from the '49 handbook. As I root through the literature I have, I'd be happy to pass along other items as I find them.

John

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: KS0F@aol.com
Subject: Cleaning
Message-ID: <950923115447_27168152@emout04.mail.aol.com>

Greetings All,

I am a novice at this vintage stuff. Been at it several years but was around when the 50's stuff was new and my eyes were wide.

Someone mentioned Scotts liquid Gold in another post on cleaning which causes me to throw in my neophyte 2 cents worth.

I have used some stuff similar to the Scotts called Weimans Panel Bright. It is a furniture/panel polish and obviously has some type of oil in it. It does a good job on crackle finishes and others and in about 5 years I have pieces that show no problems from its use. I do try to dry it as much as possible after application and it does pick up dust. You gotta dust this stuff anyway so I don't see it as a problem. I have a large {1 inch round ceramic cleaning brush) that I spray the stuff on for small areas and brush it on to get into tight places on panels etc. and use a dry brush to remove as much residue as possible. I think the oil base and this stuff have actually saved some pretty dried out paint. Johnson Ranger cabinet for instance. The maroon paint gets dry enough to a point it will come off on your clothes etc. . I have an old cabinet that looks good today because this stuff was used on it and nothing else. When you wipe this panel now you get only dust and no paint. I am sure a thin layer of oil is in between the cloth and paint but you can't see or feel it. FWIW

73 de KS0F Mike

P.S. For a cabinet, I spray the stuff on thick and wet and smooth it around with my bare hand. I let it set a while, maybe an hour or so and then gently wipe dry with a clean cloth several times.

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: jproc@worldlinx.com
Subject: Cleaning BA's
Message-ID: <Chameleon.4.01.2.950923003847.jproc@>

Dear BA's,

The concept of throwing a BA into a dishwasher is wreckless and dangerous advice unless you know exactly what you are dealing with. Just imagine a newbie who is just joining the group and ends up reading this advice. That person throws his Model XYZ boatanchor into the dishwasher and ends with ruin. Some gear is well designed and can easily withstand the rigours imposed by the dishwasher. Other equipment is so poorly designed that it will go into meltdown as soon as its in sight of the dishwasher. Do you want to be a 'test pilot' for that piece of vintage equipment? Are the equipment markings water-soluable or not? Will the materials in the BA withstand the temperature?

There is great deal of satisfaction to be derived in making a piece of equipment look like it just rolled off the production line and my compliments go to those individuals who can pull it off, but not all of us are so gifted. On the flip side of the coin, there is something to be said for doing a best effort cleanup and let the equipment speak its history. The paint worn off around a front panel knob may look bad from a cosmetic viewpoint but it also indicates how that piece of equipment was used while it was in service. I classify this as 'BA personality'. This is the philosophy which I adapted for the BA equipment aboard the ship.

My golden rule is: Expose the BA to the minimum amount of cosmetic and electrical disturbances which will achieve the optimum appearance and performance. Don't develop a 'macho' approach to perfection.

This wisdom was formulated from a few 'oops, I shouldn't have done that' incidents from the past.

Regards,

Jerry Proc VE3FAB
E-mail: jproc@worldlinx.com
Radio Restoration Volunteer

HMCS Haida, Toronto Ontario

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: Kevin J Pease <kevin@mm1001.theporch.com>
Subject: Re: Cleaning BA's
Message-ID: <Pine.LNX.3.91.950923080135.318A-1000000@mm1001.theporch.com>

Kevin J Pease
WB0JZG Mt Juliet, TN.
mm1001.theporch.com

I agree with you 100%. If one puts a 32V1 or 75A1 into the dishwasher the markings on the sliderule dial wis disappear. Manny of the inks on old BA gear dials are water soluble. If one compleately disassembled a BA one could put the bare chasis into the dishwasher or maybe an empty cabinet but definately not the whole piece of equipment.

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: "nuusers" <NUHOSE@befac.indstate.edu>
Subject: Re: Cleaning BAs
Message-ID: <258D043F01@befac.indstate.edu>

Paul, K4MSG replied with:

> >5. Will the only band that still works be the Marine Band?
>
> The Marine Band has never worked, it just travels around
> playing blood-stirring music and looking fancy.....they did
> name a harmonica after it, though.

>
> Paul, K4MSG
>
>

"Never Worked"

I am afraid that I'm going to have to draw the line at such
BLASPHEME...I shall meet you at the Halls of Motezuma...
at high noon!! I would bet John Philip himself is turning over in
his grave at the very thought....shame, shame!!

73,
GYSGT S. L. Hose USMCR (ret)
KD1DT

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Bill Smith <bilsmith@crl.com>
Subject: Re: Cleaning BAs
Message-ID: <Pine.SUN.3.91.950922172404.8664C-100000@crl3.crl.com>

On Fri, 22 Sep 1995, nuusers wrote:

>
> Paul, K4MSG replied with:
>
> > 5. Will the only band that still works be the Marine Band?
> >
> > The Marine Band has never worked, it just travels around
> > playing blood-stirring music and looking fancy....
>
> I would bet John Philip himself is turning over in
> his grave at the very thought....shame, shame!!
>
> 73,
> GYSGT S. L. Hose USMCR (ret)
> KD1DT
>

Bet John Philip never played heavy metal.

de Bill, AB6MT
bilsmith@crl.com

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Sandra L Knepper <slkst29+@pitt.edu>
Subject: Re: Cleaning BAs
Message-ID: <Pine.3.89.9509222159.A29522-0100000@unixs6.cis.pitt.edu>

Please be very careful in cleaning boatanchors with water. I have had several unfortunate experiences (ruined transformers) because I was so smart that I believe the old oven trick. Just a little moisture embedded in the transformer can immediately short out windings. I prefer to use a hot hair dryer rather than an oven. The hot air from a air dryer dries any moisture. However, with the scarcity of power transformers for your Collins, Hallicrafters, National etc. are nonexistent. Why take the

chance because you need an absolutely clean chassis. Use q-tips, rags with cleaner fluid. Water and old radios do not mix. My last word on this subject. And, Krylon clear spray does not measurably change the appearance of a radio. At least try it. I have had some bad experience with linseed oil. Dave, W3BJZ

On Fri, 22 Sep 1995, Steve Ellington wrote:

> What a contrast to the information I just got from the usenet. One expert
> puts his rigs in the xyl's dishwasher for two complete cycles. Another
> said this is fine but don't use dishwasher detergent due to some abrasive
> material in it. Instead, use dish washing detergent. We don't want a case
> of "dishpan anchors"! I responded to this with a few questions.
>
> 1. Most dishwashers use maximum hot water. Won't the heat affect the
> plastic on the radio?
>
> 2. What about soap and water under such pressure removing important gear
> grease i.e. grease inside a jones drive etc.
>
> 3. How do we get the H 2 O out of our S-meters?
>
> 4. Will water get inside power transformers and never go away.
>
> 5. Will the only band that still works be the Marine Band?
>
> After the washing, he recommended 2 days in the oven. Would this dry heat
> possibly cause crazing of the plastic components?
>
> Steve
> n41q@iglou.com
>

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: ac082@freenet.carleton.ca (Charles Hunter)
Subject: Re: Cleaning BAs
Message-ID: <199509230628.CAA08951@freenet3.carleton.ca>

Don't forget the WATER SOFTENER. Most clean with a salt water solution and leave lots of salt on the resin after the cleaning cycle. It'll raise hell.

>>>4. Will water get inside power transformers and never go
away. >>
>> Not if you leave it in a heated oven for about 24 hours, the
>>way Tektronix did.
>

>This is bad information. It might apply to distilled water, with
>no possibility of salt.

--

ac082@freenet.carleton.ca (Charles Hunter)

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: Cleaning BAs
Message-ID: <199509230902.CAA05281@desiree.teleport.com>

>
> Let me just mention that as far back as the 1960s, Tektronix
>used to clean old 'scopes by immersing them in a *water-filled"
>ultrasonic cleaner. After a thorough cleaning by this method
>(some type of soap was used, possibly; don't remember) the unit
>was then placed in an oven and dried for several hours (sorry,
>don't know the temperature). So, the technique is *VERY* old.

With all due respect, this is not quite how it was. I started working for Tek in 1960 in manufacturing test and transferred to Factory Service in 1961. This where the washing technique at Tek was developed. What follows is not hearsay. I lived it. BTW I worked at Tek in Field Service until 1966 when I left with another service tech to form our own Tek scope service company in the LA area (Mobilscope). I rejoined Tek in 1970 and worked there in various jobs in service, marketing, and sales until 1989. Believe me, I know the Tek cleaning process inside and out and I use it today in my own shop with excellent success. (The following is a plug for my book. Disregard it if you don't like commercials.) The process is described in great detail on Pages 17-26 in my book "OSCILLOSCOPES--Selecting and Restoring a Classic", \$19.95, postpaid. I will share part of that information with you right here for free. The important point is that Tek never immersed scopes in water or any other liquid as a means of cleaning them. The technique used is to spray the scope with a solution of water and some form of industrial detergent. Back in the '60s, I remember Tek using powdered "Kelite Spray White" which had the consistancy and appearance of powdered laundry soap. It had to be thoroughly mixed with water until it was totally dissolved or the granules would plug up the spray gun. Another detergent that Tek used was "NL Concentrate" which came in liquid form and made the mixing process much easier. Now I use "Simple Green" liquid. The ratio is something like 10 or 20 parts water to 1 part detergent. We were always extremely careful to avoid spraying water or soap directly into the power transformer. A little got in there anyway, but not much. I use a long nozzle spray gun and about 100 lbs air pressure to apply the soap solution. Lots of scrubbing with tooth brushes and soft plastic bristle brushes follows with some of the straight concentrated detergent used in the dirtiest areas. Then the entire instrument is thoroughly rinsed with water

(avoid spraying directly into the power transformer). Most of the water is removed with compressed air and the instrument is put into a drying oven for 48 hours. This is the short version of the cleaning story but you get the point . . . immersion in water is a no-no for a Tek power transformer.

BTW I never hear of an ultrasonic cleaner being used to clean a scope.

>>1. Most dishwashers use maximum hot water. Won't the heat affect the plastic on the radio?

Yep, heat can affect plastic. You just have to watch the temperature especially the temperature of the drying oven. Radiating heating elements in the oven can concentrate the heat right on a plastic part and destroy it even though the general temperature in the oven is moderate.

>>2. What about soap and water under such pressure removing important gear >>grease i.e. grease inside a jones drive etc.

>

> Could be a problem, certainly. Re-lubrication would be in order in any case, I would think.

In scopes, it is the switch detent balls and the fan motors that need to be lubricated after washing. Re-lubrication is part of the cleaning process.

>>3. How do we get the H₂O out of our S-meters?

> Remove the meter first.

That's what I do when washing a Tek instrument with a meter in it.

>>4. Will water get inside power transformers and never go away.

> Not if you leave it in a heated oven for about 24 hours, the way Tektronix did.

24 hours in the oven will not always save a transformer from water damage even if you have not immersed it and have been very careful to avoid spraying directly into it. Water with lots of ions in it is the deadly enemy of a Tek power transformer. If your water has lots of ions, you need to "deionize" it which is a process that works very similar to a water softener. If you don't take ions out of the water, some will be carried into the transformer no matter how careful you are. The drying process will drive the water out and leave the ions deposited inside the transformer where they can form paths to ground. Especially vulnerable is the CRT filament winding which is generally elevated to several thousand volts DC.

>>After the washing, he recommended 2 days in the oven. Would this dry heat >>possibly cause crazing of the plastic components?

> Could be. Remember that we use lots more plastic now than they did in 1960, so I would suspect that a trip to a large library and a perusal of electronics trade publications might >turn up something on this subject (i.e., washing and baking of

>electronic equipment). In fact, industrial trade publications
>might really be the best place to look, or something from the
>test instrumentation industry.
I have not experienced crazing of plastic due to the wash process in Tek
scopes of any vintage.

Stan W7NI@teleport.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: Cleaning BAs
Message-ID: <199509230902.CAA05294@desiree.teleport.com>

>I don't let my electronics stuff anywhere near a dishwasher. If a good
>dishwasher can warp grey iron castings, I certainly don't want my old
>electronics anywhere near them.

>

>What Tek did with Tek scopes in their repair centers, and what Stan
>Griffiths recommends in his book may be fine for Tek scopes. Tek wound
>their own transformers, which meant that they knew what was used as an
>impregnant. I would not want to put a Thordarson, Stancor, UTC
>magnetic component in any sort of liquid solution until I heard from
>them that it was OK.

I second that motion, Hank. All I know is what a Tek transformer will take.
I have no idea about Thordarson, Stancor, UTC, etc.

Caution is the order of the day.

Stan W7NI@teleport.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: john brewer <johnmb@nando.net>
Subject: Re: Cleaning BAs
Message-ID: <9509231058.AA26826@merlin.nando.net>

Steve said...

>Please be very careful in cleaning boatanchors with water. I have had
[...]

However, with the scarcity of power transformers for your
>Collins, Hallicrafters, National etc. are nonexistent. Why take the
>chance because you need an absolutely clean chassis. Use q-tips, rags
>with cleaner fluid. Water and old radios do not mix.

I'd generally agree, but for another reason. Hurrying and BA restoration do not mix! Hurrying and 2m FM mix, Hurrying and DX contests mix.

Taks the time with qtips, rags and forceps, hand cleaner (and your hands!) and get to know your radio. Radio restoration is good therapy... a couple hours here and there hand cleaning your radio will do you, as well as it, more good than a trip in the dishwasher. (Besides, dishwashers are built for other purposes, not radio chassis. Knobs, and small parts in net bags I am referring to!).

Think twice about applying ANY solvent (water included) to any old radio. ... one you ruin things, its hard to put the genie back in the bottle.

Slow down, and enjoy the experience. Your radio (and your psyche!) will be the better for it.

73,
zen master, John
:-)

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Michael.J.Knudsen@att.com
Subject: Re: Cleaning fluids (was re: 535 questions)
Message-ID: <9509221608.AA05246@bock.ih.att.com>

For many years I have used lighter fluid to clean and pre-lube small, delicate mechanisms and tiny ball-bearings of small motors. Does a great job of removing the old, goosed-up lube and the embedded dirt. Of course you have to follow it up with real oil. Unlike WD-40, lighter fluid evaporates quickly, leaving the bearing ready for application of true lube.

WItH all the social pressures building up against smoking, maybe we should all lay in a supply of lighter fluid. And of coruse butane lighters for use on heat-shrink tubing. 73, mike k w9nrd

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: wier@bobcat.etsu.edu (Bob Wier)
Subject: Color TV (was: Homebrew QRP rig designs)
Message-ID: <9509230120.AA19732@bobcat.etsu.edu>

|

|BTW, I remember Radio-TV Experimenter had an issue around '64-65 that

|told how to convert an old round-screen black & white TV into a color set
|using a rotating color filter wheel and associated circuitry. Does anyone
|happen to have a copy of that issue? I'm looking for it. Thanks.

|
|73, John Martin
| jmartin@hrlban1.aircrew.asu.edu

This kind of jogged my memory - does anyone remember another device which you
could
use to make a color TV out of B&W? I used to see it sold in variety stores (or
five and dimes as we used to say then - like Rexall). It wasn't too complicated -
no tubes, no semiconductors, no electricity.

It was a sheet of colored plastic you stuck onto the face of the picture tube (no
joke!)
:-)

THANKS & 73 de WB5KXh

----- Round Up the Usual Disclaimers! -----
Bob Wier, keeper of the Photo-3D, Icom radio (WB5KXH),
Overland Trails, and Motorola HC11 mailing lists
wier@bobcat.etsu.edu

"Kentucky women are possessed of strong stomachs. It is not
considered an insult to invite them to take a drink."
- Silverton Standard May 19th, 1901

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: "Dick Dillman" <ddillman@igc.apc.org>
Subject: Re: Color TV (was: Homebrew QRP rig designs)
Message-ID: <79142.ddillman@igc.apc.org>

On Fri, 22 Sep 1995 20:19:39 -0500 (CDT),
Bob Wier <wier@bobcat.etsu.edu > wrote:

>It was a sheet of colored plastic you stuck onto the face of the picture tube (no
joke!)
>:-)

Yep, I remember that, along with the TV show "Winky Dink" in which the
kids were supposed to put a transparent plastic sheet on the screen
and draw on it along with the show's host. Of course, for those of us

without the sheet who drew *directly* on the screen, there was a certain dislike for the program among our parents.

Best Regards,

Dick Dillman/WPE2VT
<ddillman@igc.apc.org>
San Francisco

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: "Hal R. Waite" <halwaite@netcom.com>
Subject: Re: Color TV (was: Homebrew QRP rig designs)
Message-ID: <Pine.SUN.3.91.950922192517.13610A-100000@netcom11>

> This kind of jogged my memory - does anyone remember another device which you
> could
> use to make a color TV out of B&W? I used to see it sold in variety stores (or
> five and dimes as we used to say then - like Rexall). It wasn't too complicated
> -
> no tubes, no semiconductors, no electricity.
>
> It was a sheet of colored plastic you stuck onto the face of the picture tube
> (no joke!)
> :-)
>
> THANKS & 73 de WB5KXh

That sheet was colored brown on the lower half and blue on the upper half
to simulate the earth and sky (useful only for golf tournament broadcasts).
There was also a highly-distorting magnifying lens to place in front of
the picture tube. Still, Milton Berle was funnier than anybody today.

Hal K4GFI/7

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Grant Youngman <gyoungma@gtetel.com>
Subject: RE: Color TV (was: Homebrew QRP rig designs)
Message-ID: <Chameleon.950922214803.gyoungma@gyoungma.gtetel.com>

>It was a sheet of colored plastic you stuck onto the face of the picture tube
(no joke!)

>:-)

Remember it well. Seems to me it was sort of bluish (sky) at the top and greenish (grass) at the bottom, or something like that.

Sort of on a par with things like deeds to 1 sq in. of the Yukon, Captain Midnight decoder rings, Tom Corbett Space Cadet binoculars, X-ray glasses and ventriloquist "voice throwers". :-)

Grant/NQ5T

Grant Youngman -- NQ5T

Once upon a time (and maybe again): K5VCM
and for a while W0JXE, KH6HHC, WB4BBD

gyoungma@gtetel.com

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Bill VanAlstyne <bill@cruz.com>
Subject: Cosmos PTO end-point / linearization
Message-ID: <199509230012.AA08738@cruz.com>

At 03:27 AM 9/22/95 -0500, SHAUN MERRIGAN wrote:

>So we have established that: Cosmos PTO's do have an endpoint
>adjustment, they also have a unique compensation stack adjustment which
>is accessible from the outside of the PTO. This raises the possibility
>that one could do an endpoint/linearizing adjustment without having to
>remove the PTO shielding cans. Anybody tried it??

Shaun et al.,

Yes, I've tried it -- made a first pass at it anyway! And I can confirm that your description of how the PTO works is quite accurate, from my experience.

I adjusted the end-point slug with the PTO removed from the R-390A chassis and hooked up to a frequency counter. This procedure worked fine, and I was able to correct for my approximately 1% (10 KHz in 1 MHz) PTO/dial error. I put a paper template under the shaft coupler plate, and that worked accurately enough to get it within +/- 100 Hz on all 100 KHz calibration points.

Now, as far as adjusting the little linearization compensators (of which there appears to be one for each 25 KHz of tuning range), I found I really

couldn't get an accurate enough position measurement with my paper template method except on a repeating 360-degree basis -- i.e., a single calibration mark per rotation for each 100 KHz point.

To accurately adjust the linearization compensators at *each* 25 KHz point, one would need to make an adjustment jig with a large (or geared) substitute dial mechanism -- or figure out how to make the adjustments with the PTO installed in the chassis. Right now, I'm figuring to work on the latter approach. It appears it will require some specialized tweaking / viewing tool(s). Roy Morgan and I are collaborating (cross-country) on this dubious endeavor. Any and all advice from other intrepid souls who have "been there and done that" is eagerly solicited.

In any case, at the moment I have probably +/- 200 Hz accuracy anywhere along the 1 MHz range, with +/- 100 Hz accuracy at the 100 KHz cal points. Not bad... but not as good as it could be. This was just a first attempt to figure out how it worked and what might be done.

Electrical/thermal stability of this PTO appears excellent, BTW, especially with the oven running. So far, I would give the Cosmos PTO pretty good marks, both in terms of design and implementation.

One thing I want to mention, however. It was previously stated that Cosmos moved the end-point slug access hole over behind the output transformer. In order to access and adjust this slug, it is necessary to remove the output transformer shield can. The PTO's B+ goes through this inductor, which is cleverly wired to its base with BARE BUS WIRE. A non-conductive alignment tool and other insulating precautions are *highly advisable* here. (Obviously, this is one area where Cosmos *doesn't* get high marks for design!)

Stay tuned...

Bill VanAlstyne, N6FN
bill@cruz.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: Andy Wallace <wallace@mc.com>
Subject: Re: Cosmos PTO end-point / linearization
Message-ID: <9509230813.AA05734@kali>

----- Begin Included Message -----

From: Bill VanAlstyne <bill@cruz.com>
Subject: Cosmos PTO end-point / linearization

To accurately adjust the linearization compensators at *each* 25 KHz point, one would need to make an adjustment jig with a large (or geared) substitute dial mechanism -- or figure out how to make the adjustments with the PTO installed in the chassis.

----- End Included Message -----

Isn't the 390A PTO (and its family) one MHz range for every 10 turns, exactly? So it seems to me you could be in business with a simple turns counter. If it has tenths-of-turns, all the better, but a needle pointing at a mark on the coupling to the counter would assure you're spot-on. The frequency counter would be a must... I imagine a jig like this would be useful for the other PTOs as well, and you could just tap the stacks into line while watching the counter.

--Andy
wallace@mc.com

(shooting in the dark again...never had a PTO apart!)
(Or for that matter, a PLO....Permanent Latrine Orderly)
(No time fer Sergeants)

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: morriso@vifp.monash.edu.au (Morris Odell)
Subject: Re: CQ DX de KA1GTT
Message-ID: <199509230519.PAA00528@brain.vifp.monash.edu.au>

On 19 September, Andy Wallce wrote:

>I don't know if this would spark some conversation or not,
>but I have a question. There seem to be lots of people on
>the BA list that aren't in the USA, yet most of the talk
>around here comes from there.
>
>What do you people "outside of the USA" do with boatanchors? I
>am genuinely curious. Possible discussion might be:
>
>-- the kind of things available where you are
>-- what kind of stuff was surplus in YOUR country after WWII
>-- what seems to be the "favorite" brand
>-- what sort of stuff is very scarce
>-- how much homebrewing is done, and what kind
>-- the difficulty -- or ease -- of finding tubes
>-- whether or not you think boatanchors are expensive where you are
>-- whether you can find local boatanchor friends

Here in Australia we have nothing like the profusion of Boatanchors that is

discussed daily on this list. There is not a large military-industrial complex here so this kind of stuff does not appear for sale as often as in the US. The postings on this list make an Australian boatanchorite very envious! (as do the Fair radio catalogs).

Having said that, there is still some government surplus stuff around and classics like R390A receivers etc are snapped up quickly. The only commercial sources of bottles are antique or hi-fi type dealers but a lot of hams trade them around, and at least one radio club here has a "valve bank".

Most of the hams I know have little interest in BA gear - most activity here takes place on solid state black boxes. Virtually all homebrewing (I would think) is solid state and the difficulty in obtaining "radio" parts makes this difficult at times. Boatanchors of known reputation and quality (anything made by Collins, HP, Tek, Racal etc) are not cheap even though there is probably a dwindling number of people who know how to appreciate them properly.

Morris VK3DOC

morriso@vifp.monash.edu.au

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: "Dick Dillman" <ddillman@igc.apc.org>
Subject: Crystal Calibrator
Message-ID: <73042.ddillman@igc.apc.org>

Does anyone have a 100Kc. external (117VAC operated) crystal calibrator they's be willing to part with?

Best Regards,

Dick Dillman/WPE2VT
<ddillman@igc.apc.org>
San Francisco

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: KS0F@aol.com
Subject: CX ?
Message-ID: <950922203627_26702509@emout05.mail.aol.com>

Greetings,

I misplaced the print from W8KGI on the Classic exchange.
Checking a mag it said 1900z the 24th to 0400z the 25th. Is
that correct? Got the newer stuff fired up on 80 ready to go.
DX60B/HG10B and Drake 2B with Johnson TR for QSK. Gonna
try to get on later tonight on and about 3560khz.

73 de KS0F Mike

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Michael.J.Knudsen@att.com
Subject: Re: Diode Noise Generators
Message-ID: <9509221614.AA05256@bock.ih.att.com>

Must you use a 1n21 xtal, or will 'most any diode make noise?
I've heard that a back-biased transistor base junction will act like a Zener
at around 6V, and put out lots of "fluff" in the process.

In fact, real ZXener diodes are supposedly a bit noisy.
I guess a lot of diode junctions that make noise will not
necessarily produce usable output up into the VHF/UHF region where it's most
useful.

73, mike k w9nrd

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: MEC <danmec@inet.uni-c.dk>
Subject: For Military collectors
Message-ID: <Pine.3.89.9509231341.A23667-0100000@inet.uni-c.dk>

I have FS the Warzaw-pact "equivalent" to an/grc-9 , R 104M.
pse e-mail me if interested. PS is heavy !!

73 rag oz8ro

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: KE8NEfix@aol.com
Subject: FS code practice oscillators
Message-ID: <950920121454_104217109@emout06.mail.aol.com>

Hi Gang,

I have two extra code practice oscillators that I would like to make
available to the group.

1. Ameco CPS. this is a 120vac plug it in the wall oscillator that has a
50C5 and 35W4 in it. Real tubes. I just recapped it and so it has no hum

and a nice clean tone. Tone and volume are adjustable from the front panel and it uses a 5" speaker or headphones, whichever you prefer. I don't have any info but the circuit is simple and so you probably won't need any.

\$22.00 shipped to your door.

2. Heath HD-1416. This is a Solid State unit that uses a 9 volt battery to provide power for the oscillator. Key connection is in the front and headphone connection, too. Speaker is in the box and tone adjustment is in the rear. Very small unit and I have a manual for it. \$18.00 shipped to your door.

There you are gang, let me know here, or call me at 616-677-3706. If you get the answering machine, just leave the message and your number or e-mail address and I will wait for your check.

Thanks,

KIM

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: MEC <danmec@inet.uni-c.dk>
Subject: German WW2 RX for trade
Message-ID: <Pine.3.89.9509231910.A9086-0100000@inet.uni-c.dk>

I have a Torn Eb surplus to requirements for trade. Prefer swap with something else German WW2 or clandestine set.
But I am not religious about it.

73 rag oz8ro

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: KS0F@aol.com
Subject: gzip
Message-ID: <950923152343_27294273@mail06.mail.aol.com>

Greetings,

Can anyone tell me about gzip. I am trying to read files ftp'd from theporch.

TIA Mike
KS0F@AOL.COM

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: dmedley@indirect.com (David Medley)
Subject: Hammarlund HQ129X for sale
Message-ID: <199509230012.RAA04642@bob.indirect.com>

I am cleaning out my shack and reducing my collection of old communications receivers. Will advertise them one at a time as I get them reasonably cleaned up.

The first to go is a Hammarlund HQ129X.

Here is a fair description of the radio:

1. Mechanical. It has been stored in the dry desert for the past several years and is free of corrosion. It is dusty however. The cabinet is good and appears undamaged with no extra holes. Front panel is unscratched but looks its age. The writing is still clear. Dial mechanism works fine.
2. Electrical. The radio works on all bands but has an apparent audio distortion problem which should not be hard to fix. Could use some TLC I am sure as its performance could do with some improving.
3. No manual or speaker.
4. Price \$150.00 pickup in Tucson. Will ship for additional cost of professional packing and UPS ground. i.e I will deliver it to the local UPS packing/shipping agent.

Anyone interested in this radio send me an INTERNET message at dmedley@indirect.com and I will furnish my telephone number if you need more info.

Others I have to dispose of include:

1. SW-3 with numerous coils and original dog box ps.
2. SW-4 with some coils and original dog box ps.
3. Navy version of the HRO with set of coils.
4. National NC-101

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: "Robert M. Bratcher Jr." <bratcher@krypton.netropolis.net>
Subject: re:homemade QRP transmitters
Message-ID: <199509230031.AAA12713@krypton.netropolis.net>

I remember an article last year in a Radio-Electronics issue that used two 50c5's in push pull I think. Anyhow there was 2 of them in the crystal oscillator!

Robert M. Bratcher Jr.
E-mail to:
bratcher@netropolis.net
Beam me up Scotty!

(I'm a real Star Trek fan)

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: "Dick Dillman" <ddillman@igc.apc.org>
Subject: Johnson Tube CB
Message-ID: <72926.ddillman@igc.apc.org>

The unit for which I need a 9-pin "octal" socket is a mini-anchor, a Johnson Messenger tube-type mobile CB radio. This is the chrome face, 5 channel job that runs on 6VDC and 117VAC. My intention is to install this beauty (feeding, of course, a 1/4 wave stanless steel whip) in my 1958 Willys 4WD utility wagon (with 6VDC system).

Can anyone help me with a schematic, pin connections or any other information for this little beauty?

Also, does anyone have any information on a solid state (sorry) replacement for 6V vibrators?

Best Regards,

Dick Dillman/WPE2VT
<ddillman@igc.apc.org>
San Francisco

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: haynes@cats.ucsc.edu (Jim Haynes)
Subject: Landline Morse on Navy Ships
Message-ID: <199509230509.WAA20397@hobbes.UCSC.EDU>

The current issue of Dots and Dashes has several accounts of the use of landline Morse on Navy ships. I guess there was a period when the Navy wasn't sure telephones were here to stay. Then one radio operator mentioned that he had been told to learn American Morse so that when the ship was tied up they could connect to a Western Union wire and handle telegrams to the ship that way.

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Andy Wallace <wallace@mc.com>
Subject: Millen preamp...what umbilical cable?
Message-ID: <9509230726.AA05679@kali>

----- Begin Included Message -----

- Millen 92101 Antenna Matching Preamplifier with 46906 (48-55mc) plug-in. OK people...what's the plate voltage required? I might hook it up to the 183D for 6M, which I've heard the 183 needs a little help with. Age/rarity? Don Merz had one for sale a while ago.

----- End Included Message -----

I am still wondering what kind of power this little guy needs. Can anyone help me? This is a small squarish box with a plug-in for the band coverage...typical strong Millen construction.

--Andy
wallace@mc.com

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: "Ray L. Mote" <rmote@rain.org>
Subject: N0DMS and his R-389 article
Message-ID: <Pine.SUN.3.91.950922233155.781A-100000@coyote.rain.org>

At the request of Barry Wiseman, drove a few blocks and picked up an R-389 from a guy who was physically unable to pack/ship it to Ray Osterwald, N0DMS. Size of available boxes and concern over recent shipping horror stories led me to Draconian packing techniques. I cut slabs of 3/4-inch plywood to make a skin-tight case for the guts behind the front panel, held together with drywall screws. A plate of the same stuff slightly longer than the front panel was attached to the handles using #10 solid copper wire looped thru the wood and around the handle, then twisted. Three loops per handle did the trick. Then into a cardboard box that had been used to ship a computer, with 1-inch styrofoam sheets top and bottom, and on each side (no room in front or rear, given the size of the box). I did screw another 3/4-inch thick plate to the one on the front panel, giving a total of 1.5-inch plate that should take a sledgehammer blow with no problem. Did a back plate for the behind-the-panel stuff, also. Prior to packing, removed the power supply module and AF amp module, and double-boxed each for separate shipping. The "82-pound" receiver dropped to 60 without the modules, then back up to 85 pounds (according to UPS -- 75 according to my scales), with the other two weighing in at 16 and 8 pounds, respectively.

Ray called tonight to say the receiver arrived in fine shape! Now all he has to do is a thorough cleaning, circuit familiarization, adopt a restoration strategy, implement it, take performance data, and write the

article for ELECTRIC RADIO. Wonder if he'll mail it by Monday?! :-)

Finding radios is easier than finding a way to get them shipped. Please be open to calls for help -- someday *you* may need that help!
73.....Ray Mote, W6RIC

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: jproc@worldlinx.com
Subject: Naval (Radio) Documents
Message-ID: <Chameleon.4.01.2.950922234549.jproc@>

Dear BA's,

Last winter, I finished transcribing three actual naval documents from WW2 which might have become illegible had they been left standing a few more years. (Originally, they were all classified as secret). Two of these are laden with radio information. They are:

- 1) Convoy Sailing Order - This was a command order to the escort ships protecting a specific convoy and shows radio call signs and W/T procedures.
- 2) Convoy Cruising Order - Shows the specific lineup of every ship in one specific convoy and indicates radio calls of all ships. Shows the position of the communications ship and denotes distances that ships are to keep. (To my surprise, this convoy even had one passenger ship).
- 3) The actual attack report filed by the the British destroyer HMS Eskimo in conjunction with HMCS Haida when it attacked the German sub U971.

All of these documents are available in Wordperfect format only and cannot be posted to the archives. If anyone is interested in receiving these files and your mailer can support attached 'octet-stream' files, then please send your request to me via PRIVATE E-mail. Allow a day or two so I can collect names.

Regards,

Jerry Proc VE3FAB
E-mail: jproc@worldlinx.com
Radio Restoration Volunteer
HMCS Haida, Toronto Ontario

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995

From: john brewer <johnmb@nando.net>
Subject: Neolithic Masking tape
Message-ID: <9509232102.AA07444@merlin.nando.net>

Ok, I have smugly skipped over previous threads on how to remove this stuff. I have a nice R46B speaker cab, with 40 year old masking tape on the front. Can someone send me (to this address, in order to spare reposts to the list) proven techniques to get this stuff off.

It seems permanently fossilized on there!
Thanks!
/john

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: n5off@w5ddl.aara.org
Subject: PT0 Adj, 10 turns
Message-ID: <185570@w5ddl.aara.org>

So far I have not had the ambition to attack compensating stacks on PT0's (my 6 year old always wants to help =:)

I simply use the disk on the Oldham coupler as a guide, and make pencil marks on the disk and frame to turn the shaft exactly 10 turns, no paper templates or anything like that. Here is the procedure w/o the compensating stack adjustments.

- 1) Hook up freq counter to PT0 output.
- 2) Make note of output in kcs for a 10 turn input, (ex 991 kcs for exactly 10 turns).
- 3) turn the adjusting screw 1/2 turn or so and make note of the amount and direction.
- 4) erase old pencil marks and make new ones (what was a convenient mark will now move to a new spot).
- 5) GOTO 2 until output is exactly 1000 kcs for exactly 10 turns from the spec. start and stop outputs.
For example, the R390 PT0 will output from 3455 kcs to 2455 kcs in exactly 10 clockwise turns.

Now that you have this mastered, you can attack the compensating stacks to get the 100 kcs points to fall right on, but I find the 100 kcs point usually fall in spec when the thing is aligned as described.

73 est bonne chance de tom n5off

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: n5off@w5ddl.aara.org
Subject: PTO Makers
Message-ID: <185572@w5ddl.aara.org>

These are the PTO makers I have stubled upon, there may be more:

Collins
Cosmos
Dubrow
Motorola
Progressitron

There may be more.

73 de tom

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Andy Wallace <wallace@mc.com>
Subject: R-392 factory mods?
Message-ID: <9509230609.AA05614@kali>

My 392 has MOD 2 inked on the top of the chassis. Anyone know what this mod entailed?

And I found out why the xtal calibrator wasn't working...someone swiped my 200 kHz xtal oven! I no longer have a 390A...is this the same oven? And does anyone have a working one to sell me for less than the \$20 Fair charges?

--Andy
wallace@mc.com

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: shaun.merrigan@freddy.com (SHAUN MERRIGAN)
Subject: RE: R390A PTOs:Who made t
Message-ID: <8B194CC.0004023C06.uuout@freddy.com>

On 09/22/95, JOE SELKREGG spoke about RE: R390A PTOs:Who made t; I say:

J I also have a PTO sitting on the bench
JS>made by Progressitron Corp. I checked it and it seems to be spot on
JS>as it is and it seems to be more stable than the Cosmos unit. The

JS>Progressitron unit uses the metal stack inside for the linearly
JS>adjustments and has a single endpoint adjustment. I may swap this in
JS>place of the Cosmos unit.

JS>Joe Selkregg

Joe:

The linear stack and the single endpoint adjustment are the "normal" adjustments as far as I have seen. The Cosmos PTO's seem to be the exception. Have you tried to do a linearity adjustment on the Cosmos?? I'd be interested to know: 1) if it can be done (that is, is there enough adjustment length on the setscrews to do it>, 2) will it hold an adjustment?? (Over an extended period??)

I wonder if Cosmos made the PTO's this way as a cost-cutting measure (easier to align??) or if they thought this was real design improvement?

Also, does anyone know how many contracts Cosmos received?? (I assume they were just a sub-contractor.) Were PTO's the only thing they ever made?? What company or order numbers were they subcontracting for??

Fascinating discussion.

Shaun

Shaun P. Merrigan
merrigan@nyquist.ee.ualberta.ca
shaun.merrigan@freddy.com
3rd Year EE University of Alberta

, CMPQwk 1.42 856 ,I'm immortal....so far. - Earle Robinson

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: greid@i-link.net (Glen Reid)
Subject: Ranger Plug Needed
Message-ID: <9509232110.AA19715@echo.i-link.net>

I need a plug and shell to fit the 9 pin exciter/accessory socket on my Johnson Ranger.

The device looks like an "octal plug " but has 9 pins.

It is is Item X13B and X13C in the Ranger manual.

Anybody have one or suggestions for finding one?

Thanks.

gr

GLEN REID

K5HGB

RIO ROBLES RANCH

Wildflower Preserve --- Bird Sanctuary ---Antenna Farm

Austin, TX

..in the beautiful Texas Hill Country...

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995

From: "Dick Dillman" <ddillman@igc.apc.org>

Subject: Re: Ranger Plug Needed

Message-ID: <72922.ddillman@igc.apc.org>

On Sat, 23 Sep 1995 16:11:56 -0500 (CDT),

Glen Reid <greid@i-link.net > wrote:

>I need a plug and shell to fit the 9 pin exciter/accessory socket on my
>Johnson Ranger.

And I need just the opposite: a 9-pin "octal" socket to fit the plug
on the back of another piece of Johnson gear (see below). Does anyone
have such a thing or know where I might find it?

Best Regards,

Dick Dillman/WPE2VT

<ddillman@igc.apc.org>

San Francisco

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995

From: Jim Specht <specht@rb.unisys.com>

Subject: Simpson 260 Adapter

Message-ID: <9509230634.AA28733@tedc>

I have one of those adaptors that plug onto the Simpson 260
meter...it is a model 657 milliohmmeter to allow the 260

to read very low resistances. The problem is...the battery that goes inside is missing, and I have no idea what type it is. Any ideas? Any input appreciated.

thx

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: "Stephen Martin" <martin4s@ncr.disa.mil>
Subject: Swan 500C
Message-ID: <9508228118.AA811836609@ncr.disa.mil>

>Date: Sat, 16 Sep 1995 23:19:27 -0400
>From: KE8NEfix@aol.com
>Subject: Re: FS: Swan 500C
>
>FOR SALE One-owner Swan 500C transceiver with matching power supply in
>almost mint condition with original manuals boxes/packing, sales receipt,
>and a pair of spare finals. Entire net proceeds of sale will go to the
>QCWA Memorial Scholarship Fund.

The Swan is no longer for sale; I bought it and the funds went to the QCWA scholarship fund.

Steve NK3R

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: Allen Jones <ajones@niiia.net>
Subject: Swan stuff...
Message-ID: <199509231701.MAA08759@silver.niiia.net>

Offers being accepted on the following misc. Swan stuff:

510X Crystal Control Adapt.

VX-2 Vox Unit

117X AC Supply

14X DC Module

All I can say about this stuff is it looks physically OK. It was part of a

trade a few years back and was never used. I have no way of testing any of it.

73 . . . Allen K9DZE

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: Tek scope fans
Message-ID: <199509230902.CAA05291@desiree.teleport.com>

Hank van Cleef wrote:

>taking that motor apart might be worth the effort, because it had
>plenty of end play, even though it works fine.

I find it worth while.

>Getting the fan off was the first great exercise. A small punch and
>some judicious tapping, and it came off, .001 at a time. A little use
>of 320 sandpaper cleaned the rust off the shaft, so that I could get
>the rest of the thing apart.

Tek Service Centers used to have the cutest little fan blade puller you ever saw . . . not too different than a miniture automobile wheel puller. I haven't seen one for years. Probably all in a land fill somewhere. Sigh.

>In short, a disaster in the making. The fan end thrust arrangement had
>completly vanished.

Early fan motors up until about 1966 used a 5 washer combination of fiber, springy phosphor-bronze (I think), steel, springy phosphor bronze, and fiber on each side of the armature. They wear out. Tek used to sell a rebuild kit with enough new washers to fix both ends. All of the new washers were white nylon and I don't ever remember seeing any of them ever wear out. A few years ago, I bought a hundred of each of the three thicknesses anticipating my needs and their unavailability. I don't know where to get them now.

There is one other tight-fitting fiber washer that goes on the shaft between the motor end bell and the fan blade. It should actually be located barely inside of the end bell. It is there to keep the bearing oil from creeping out of the motor, along the shaft, onto the blade, and from there all over the inside of the scope. It really needs to be there.

>After cleaning everything up, I swapped the rear and front bearing
>pillow blocks. That puts the oil holes on the sweep side, but you can
>still get to them by removing the air deflector. I had some AN960
>light steel flatwashers, and found some brass jobs the same size, so

>made up my own thrust bearing for that end.

Sounds like proper metal washers will work fine if you can't get mylon ones.
Good job, Hank.

Stan W7NI@teleport.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: jllyle@netcom.com (Jim Lyle)
Subject: Tektronix scope gear available
Message-ID: <199509231823.LAA18308@netcom4.netcom.com>

I have a variety of tektronix scope stuff that I've decided to let go to someone that can really use it. I've got too many projects laying in wait for me (including my first child, on the way!).

Due to the size, weight, and fragility, it's probably only practical for someone that can pick the equipment up (from the south bay area, California).

I have:

1) Textronix 581A scope with Type 82 plugin. Scope works, but has some problems. Complete with one probe, and in good cosmetic shape.

2) Original (not photocopy) manuals for above, and a very nice custom-fitted dust-cover made for me by a friend.

3) Type CA plug-in (won't fit above scope)

4) Extra CRT for above. I believe this works, but am not certain. With extra metal shield.

5) Textronix CRT, part number 154-0477-00. I don't know WHAT scope this went to, but it clearly has a fat neck and TWO separate Electron Guns, side by side. I believe this works, but am not certain. With extra metal shield.

6) Spare textronix transformer. Big and Heavy... not sure what scope this went to either.

\$75 (or best offer) takes it all, FOB my garage.

--

Jim Lyle jllyle@netcom.COM

Troubador Technologies
Consulting Services
(408) 247-4199

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Jeffrey Herman <jeffrey@math.hawaii.edu>
Subject: Telegraph Sounders
Message-ID: <Pine.SUN.3.91.950922161016.1154A-100000@kahuna>

Being the thrifty person that I am, I'm thinking of making my own telegraph sounder (I've made my own keys and even made a bug). I'd like to know about the relay windings, such as the resistance. Also, how much current flows through a typical sounder? What's the line voltage?

I've got so many relays lying around here - I'll play with modifying the amateur - no, that's not right - I don't need modifying - I mean the armature, for various sounds

I just love projects such as this!

73 from Hawaii,
Jeff NH6IL

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: "Barry L. Ornitz" <ornitz@eastman.com>
Subject: Temperature Limited Noise Diodes
Message-ID: <Pine.ULT.3.91.950922181754.20999B-100000@dua150.kpt.emn.com>

Tom, K9TA, mentioned temperature limited noise diodes in a previous post. Like Tom, I am sending this to the group because some might find it interesting. Tom said:

> No, I don't use one of those fancy critters with the controlled temp tube;
> I'd like to get hold of a couple of those tubes to build a nice, precise
> noise source, but I've never even SEEN one!

I too would like to find one of these 5722 tubes. {HINT!} They were never inexpensive or plentiful. The tube John Martin mentioned is a gas discharge tube and is also a noise source but it is suitable more for microwave than HF. This tube is designed to be inserted through a section of waveguide at a slight angle and is basically similar to a fluorescent tube. I have an X-band (10 GHz) mount for one of these tubes.

The 5722 is a temperature limited diode. Its noise emission is based on excess thermal noise from the cathode. Normal operation of vacuum tubes

generally uses the temperature saturation mode where Child's law applies. This is where the cathode supplies excess electrons and the plate current is determined by the plate voltage. The Child's law relationship basically says the tube current is proportional to the plate voltage to the $3/2$ power. The 5722, however, is operated in the region where Richardson's law holds. This is where a sufficient plate voltage exists to capture all the electrons emitted by the cathode and the current is determined by the cathode temperature alone. Richardson's law states that the saturation current per unit area of the cathode is proportion to the product of the absolute cathode temperature squared and an inverse exponential of the absolute temperature. If you do a polynomial approximation of Richardson's law, you will find that over a given operational region that the plate current is proportional to the cathode temperature to the 6th to the 9th power. A very tiny temperature change of the cathode makes a HUGE change in the plate current. The excess noise output of the tube is proportional to the cathode temperature. [John, note this correction to my earlier mail to you.]

Sometime earlier this year, someone mentioned buying some "big iron" voltage regulators for pennies a pound with some strange tubes in them. These are probably diodes operated where Richardson's law applies. As the filament voltage changes due to line voltage changes, the plate current changes a large amount. This current is used to control an amplifier driving the DC control winding on a saturable inductor. This change in inductance is used to regulate the AC output voltage of the regulator. Remember these units were designed in the days before cheap operational amplifier integrated circuits and thyristors were available. The temperature limited diode gave exceptional control for a very simple circuit! [Simplicity is a virtue - at least to this engineer.]

> What I'm using here is a homebrewed critter that uses a 1N21 crystal,
> six volts worth of penlite cells, a 0-2 MADC meter movement, and a 10K
> pot. The basic circuit is in the Bill Orr RADIO HANDBOOK (practically any
> edition from about 1955 on), back in the test equipment section.

While really solid state and not "hollow state", I still consider this a true boatanchor circuit. It is simple and it works well. Today a low power zener diode would normally be used (or the reverse breakdown of a small signal transistor). 1N21, 1N23 and even 1N82 crystal diodes work well in this circuit and all of these are "BA-era" parts. Modern silicon power diodes won't work here.

> This thing is handier and easier to use than a signal generator for
> quick alignment jobs. Combined with my RF impedance bridge and a
> receiver, it is a powerful tool for antenna and RF network design and
> adjustment.

One thing to watch out for when using a receiver as a detector is image

response of the receiver. Since the noise source is wideband, any image response will prevent a complete null when adjusting the bridge. This same thing holds even when using a simple tool like an antenna noise bridge. Those of us fortunate enough to have Drake or Collins receiver generally do not have to worry about this but some of the old single-conversion receivers may present a problem.

> BTW, I've seen a couple of articles on so-called gated noise sources.
> These things are essentially diode noise generators that are switched on
> and off at an audio rate. I haven't tried 'em, but I'd imagine that a
> broadband RF signal in the form of an audio tone could be even more
> useful than one in the form of a white noise hiss.

These are useful for several reasons. On a noisy band with a weak noise source, the tone lets you easily distinguish between the noise source and the normal background hiss. In addition when adjusting receiver front ends for the lowest noise figure, it is the difference between background noise and excess noise you wish to maximize.

73, Barry WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: Steve Ellington <n4lq@iglou.com>
Subject: Tube AF amps for rice boxes
Message-ID: <Pine.SOL.3.91.950923214115.7517A-1000000@iglou>

I've been savoring the audio from my newly restored Drake R4a. I ran the speaker cable to the back of my Kenwood TS940's speaker which has an A/B switch with dual inputs. This allowed rapid comparison between the two receivers. The audio from the Drake was much clearer, had depth and caused less ear fatigue.

I plan to set up a small tube type amplifier and feed the TS940's detector directly into this. It has a low level output for this purpose. I wonder if the solid state RF and IF sections play any part in corrupting the sound. Will doing this make a rice box sound like a tube rig? I plan on visiting some pawn shops to see if I can find an old guitar amplifier suitable for this purpose. This plan will allow AB switching from solid state to tube amps. Should be an interesting experiment eh?

Steve
n4lq@iglou.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: Jodaanve@aol.com
Subject: TV-7/U tube tester calibration?
Message-ID: <950923191141_107117192@emout06.mail.aol.com>

Gang,

Just recently restored a VT-7/U tube tester and when compared to my other test equipment it seems to be a bit stingy. When I went through it, I noticed a 3.3M resistor in parallel with a precision 245K. My thoughts were that it was added to compensate for the aging of the precision resistor, but when measured the 245K was right on. Decided to remove it and retest the "known" tubes. Now the readings appear to be extremely generous, as a matter of fact it is hard to find a tube that does not pass the minimum. I believe that a calibration procedure exists for this unit. If so, I would be very interested in obtaining copy. I am also curious if there is a good standard that can be used for calibrating other types of tube testers. Many years ago I was told that physics labs used 01A's as standards. Any information or personal experiences would be very helpful.

Thanks,

Dave WB9EGZ

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: KC5IJD@aol.com
Subject: Re: TV-x tube testers ??
Message-ID: <950920101641_104144661@emout06.mail.aol.com>

>The reason

>I ask this question is that Tucker Electronics in Dallas advertises
>a TV-2 tester for \$350 which appears to be a large box with a half
>a dozen meters and umpteen sockets and possibly capable of
>testing all but large transmitting tubes and I've been considering
>one. Could someone enlighten me as to the differences and which is
>most useful in the BA world?

I have a TV-2 and TV-7. Both are good testers but the TV-2 is by far the better though more complex and difficult to use. All those meters / pots allow one to set each particular tube parameter thus assuring a better test. It's a fine piece of equipment, BUT it is not, in my opinion, worth Tucker's price. \$ 350 is way too high. I bought mine for \$ 150. It was in very good condition. Look for one more in that range.

For most use, the TV-7 is more than adequate.

Joseph W Pinner
Lafayette, LA
KC5IJD
EMail: kc5ijd@aol.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: CASchwark@aol.com
Subject: WANTED: Schematic....
Message-ID: <950923165116_27350429@emout04.mail.aol.com>

Just picked up a near-mint Precision Apparatus B-12
Regulated Power Supply (0-400)(0-150). Front says
Precision/Paco.

Anyone know where I can obtain a schematic for this
unit? Tube compl. 5AR4, 6X4, 6AU6, 0A2, 0B2, and
two 5881's. Works great, but want to have the paper
just in case... :-)

Chuck Schwark, Chicago, IL
Antique Radio Club of Illinois (Elgin)

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Kevin J Pease <kevin@mm1001.theporch.com>
Subject: Re: WD-40
Message-ID: <Pine.LNX.3.91.950922200544.17242B-100000@mm1001.theporch.com>

I saw a recent ADD on Television where it is claimed the WD-40 is a
miracle do-all. Funnt how advertisements don't need to tell the truth.

Kevin J Pease
WB0JZG Mt Juliet, TN.
mm1001.theporch.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: "Roberta J. Barmore" <rbarmore@indy.net>
Subject: Re: WD-40 VS HAIR SPRAY
Message-ID: <Pine.3.89.9509230918.A17974-0100000@indy2>

Hi!

On Thu, 21 Sep 1995, Steve Ellington wrote:

> [...] In sept cq mag [...] Dave Ingram [...] recommended using hair
> spray on wrinkle finsh bug surfaces [....]
> So, tonight, I shall raid the xyl's cabinet and try some hair spray on
> something. Perhaps a dab on my HQ-129.

I would be leery of using hairspray other than on my hair. In the television "business" (well, it is sort of, that's why we have all those suited yuppies upstairs), we sometimes use hairspray as a *dulling* agent on supershiny items the camera is pointed at.

While some of the newer hairsprays have agents in 'em to try to make hair shinier than it is, many don't; and nearly all hairsprays stay a little sticky all day. Hairspray is all right as a short-term fixative for chalk drawings, but as a finsh over wrinkle paint? Dave's a nice guy but not always right. (Read his comments in his book on old-time ham radio about the HRO coilsets, or interior construction of the ST-202--both simply off-base).

Someone else recommended using a leather-preservng agent; that may be better, but many of them contain water and/or interesting petrochemicals, so be careful.

You *can* apply soft wax on wrinkle finish with a nappy cloth, and then polish it up with a shoe-shine brush (or something a bit stiffer, the trick being to not remove all the wax with the brush), but it's a bit iffy. A little dab'll do ya--don't try it with something you're fond of 'til you've got the knack! Both the equipment and the wax should be warmed up a bit. Ammonia will usually take it off but it's slow going.

Clear laquer--Krylon et alia--is pretty good, though I only use it on my homebrew wrinkle-finish gear, to keep the dry-transfer labels from coming off. "Plasti-Coat" makes a very long-lived clear that seems especially good--Krylon yellows over time, at least the older formulations. (Ask me about the present product in ten years!)

Other folks use Scott's Liquid Gold, an aerosol furniture polish, on wrinkle finishes, and that seems to work pretty well. Can't see why it wouldn't be fine for a wrinkle-finished bug base, too!

None of the foregoing applies to the "japanned" finish on earlier bugs, especially if the pinstriping's still there. The base paint job is *very* smooth, meaning the pinstriping hasn't got much to hold on to--there's a lot of 'em out there with no stripes and my suspicion is that they didn't come that way from Vibroplex. Caveat restorer!

73,
--Bobbi

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: Randall Berry <rberry@CapAccess.org>
Subject: Re: WD-40 VS HAIR SPRAY
Message-ID: <Pine.SUN.3.91-FP.950923184049.28948A-1000000@cap1.capaccess.org>

More Hair spray stories for all to ponder..

The only thing I have found for use of Hairspray is an old trick we used in High School was to spray old speakers with it and re stiffen the paper to prevent them from cracking or the fibers in the paper from seperating. I still use this trick today, Dont tell the HI Fi boys they'll argue about the degradation in fidelity but it works great for restoring old buzzard speakers that are no longer or scarcley availible. Toilet paper or crepe paper can be cut to fit the cracks as well spray on a little HS and then it will magicly fix it.. Of course the yellowing (not to be confused with Yellowee Audio!) of the paper will not be taken out but with colored hairspray availible that problem can be cured as well. Paint is to think in this area and will ruin the sound even to a tin ear like mine. And oil will definatley kill them (obviously)

But then agin I always used to spend alot of time cleaning with light solvents and then using good old Carnuba wax from the trunk of my car.. Also availible at your favorite Auto Parts store. Soften the wax slightly higher than room temp is fine. Rub it in well, and rub it off with good old Elbow Grease. Get a toothbrush and scrub out the residue from the wrinkle finish.

My efforts have payed off with a good looking restoration. Even this worked on my Viking II that was famous for the terrible paint job due to the fact of no primer aplied to the meatal surfaces (Copper hates paint) before being sprayed and no paint was lost from the finish. Exept for the battle scars that have been earned by years of service before I was the owner.

-Randy

RBerry@CapAccess.org N3LRX 3885 KHz AM
* Yell-RX Radio * Digital Audio Production * Randall J. Berry *
* Bowie, Md. * Profesional Voice Over * Audio Production Specialist *
* AMI 594 * Post Production Editing * (301)464-5608 (301)489-0614 *

From boatanchors@theporch.com Sat Sep 23 04:31:00 1995
From: Fire Bottle archive handler <firebotl@jackatak.theporch.com>
Subject: What part of "please edit" is not clear?
Message-ID: <9509222047.aa27925@jackatak.theporch.com>

Gang-

This is probably too soon to expect results, but PLEASE give me a hand...

We *all* need to reduce the noise in our posts... those unnecessary additional lines of included text that we figure won't matter much.

They are *NOISE* and not signal. We have all already read them, and to send them through the list processor again won't make them any better and may dilute what you post.

Please help us all out and make your posts relevant to the topic of the list, BoatAnchors, and leave OUT of your posts, those lines from another post that are NOT absolutely needed.

An accident is one thing, but we are seeing simple wholesale copies of previous posts when nothing in them is needed to make the successor post understandable and clear... the excess attributions actually detract from the understanding....

Thanks for the help...

--

73

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)
- - - BoatAnchor Mailing List Archiver/Owner - - -
firebotl@jackatak.theporch.com ---- listown@jackatak.theporch.com

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: "Roberta J. Barmore" <rbarmore@indy.net>
Subject: Re: What's a Bradleyohm?
Message-ID: <Pine.3.89.9509231431.A18761-0100000@indy3>

Hi!

On Thu, 21 Sep 1995, P.A.Marshall wrote:

> It's a Bradleyohm "perfect resistor" made by Allen Bradley. It's
> body is ceramic, about 7/8" wide by 1 7/8" long and 1" high, there
> are metal covers on the top and bottom with a 1/4" shaft sticking

> out of the top. By turning the shaft through multiable turns the
> resistance goes from under 14K to over 20 Meg [....]

Congratulations, you've got a carbon-compression rheostat! This is a common late-1920s through early 1930s part, may've been on the market even earlier. Think of it as a carbon mic without the mic: when you turn the shaft, you're mashing carbon granules together between a pair of plates. The more you mash, the lower the resistance.

Small-value compression rheostats were used to control filament voltage, in the precise manner of the wirewound jobs usually seen; the larger values were used as tone controls, across antenna & ground as volume controls, and from the grid of an AF tube to ground likewise; you'll also see 'em used to adjust electrode voltage in regen sets, to control regeneration. Interesting gadgets!

73,
--Bobbi

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: KS0F@aol.com
Subject: XTALS
Message-ID: <950923195745_107145291@mail06.mail.aol.com>

Greetings All,

Anyone interested in the following:?

- 1 RCA Vcut crystal. white ceramic package 16610khz
model AVA10H Ser 10689
- 1 Bliley FT-171-B SIGNAL CORPS IN BC-610 3945khz
- 1 unused holder for either of the above
- 1 octal base SIGNAL CORPS DC-8-K 4800khz made be
WE

E-mail KS0F@AOL.COM
73 Mike

From boatanchors@theporch.com Sat Sep 23 23:08:00 1995
From: Neal McEwen <nmcewen@metronet.com>
Subject: Re: XTALS
Message-ID: <199509240052.AA14942@metronet.com>

> Anyone interested in the following:?
> 1 RCA Vcut crystal. white ceramic package 16610khz
> model AVA10H Ser 10689
> 1 Bliley FT-171-B SIGNAL CORPS IN BC-610 3945khz
> 1 unused holder for either of the above
> 1 octal base SIGNAL CORPS DC-8-K 4800khz made be
> WE

You should get some takers on the xtals. I've run accross several collectors that get a real charge out of xtals. About 15 years ago, the son of Charles Bliley, (I think it was Charles, anybody recall ?) wrote a book documenting Bliley Labs and the activities of his father. I've got some real early and experimental Bliley xtal holders, both box shaped like we are used to and a round case holder about the size of an octal tube base. wondering how common the round ones are.

Anybody out there actively collecting xtals ? I run accross boxes of xtals at hamfest and grimace at the thought that they might go into a dumpster. But, trying to cut down on the things i collect drive me to leave them alone. 8'-(

--

73 de K5RW - Neal McEwen - Richardson, TX (Dallas)
***** I collect old telgraph and wireless telegraph keys *****
HomeNet - nmcewen@metronet.com - OS/2 tcp/ip SLIP
HomePage - http://fohnix.metronet.com/~nmcewen/techno_weenies.html